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(71)Applicant : MITSUBISHI MATERIALS CORP

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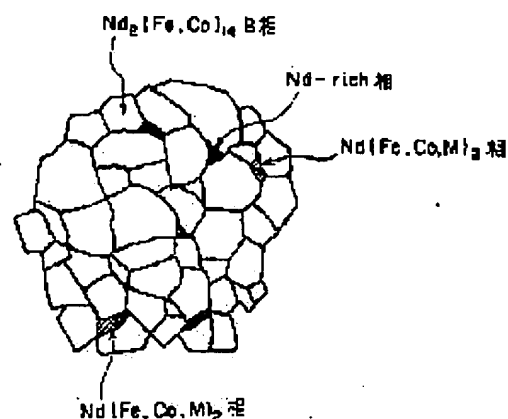
(72)Inventor : FUKATSU NOBUTO
NAKAYAMA RYOJI
MORIMOTO KOICHIRO

(54) RARE EARTH MAGNET MATERIAL POWDER HAVING SUPERIOR MAGNETIC CHARACTERISTICS AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To provide rare earth magnet material powder of superior magnetic characteristics which has an $R_2(Fe, Co)_{14}B$ type intermetallic compound phase as a main phase.

SOLUTION: A recrystallization aggregate structure has, as a main phase, a structure in which recrystallized grains comprising a component composition, which has a rare earth element containing Y (hereinafter referred to as R), Fe, Co and B as main components, and which contains 0.001-5.0 atomic % of one or more species out of Zr, Si and Hf (hereinafter referred to as M), and an $R_2(Fe, Co)_{14}B$ type intermetallic compound phase which employs a tetragonal structure whose recrystallized grain diameter is 0.05-50 μm in average, adjoin one another, and contains R-rich phase in partial grain boundary. In R-(Fe, Co)-B-M based magnet material powder which comprises the structure, the recrystallization aggregate structure contains 0.1-1vol% of a $R(Fe, Co, M)_2$ in volume percentage.



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